THE RESULTS OF SEVERAL YEARS COLLECTING PARASITIC FLIES (DIPTERA, TACHINIDÆ)

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As early as 1931 the writer began making some collections of parasitic flies. Serious collecting was begun on the advice of Dr. Robert Matheson of Cornell University and the late Dr. J. M. Aldrich of the U. S. National Museum. Prof. H. J. Reinhard of Texas Agricultural Experiment Station, who identified the writer's collection also stimulated further studies in this interesting group of flies.

At the beginning of World War II the writer was unable to continue studies in the group. Some of the notes made from 1930 to 1942 have recently been "unpacked" and it was decided to prepare this paper since several new records of distribution are available.

The fauna of Long Island, N. Y., where the writer was stationed for 12 years, is more southern than the upper part of the state. Several additions to the state list have therefore been made.

The list of species published at the end of this paper represents those collected by the writer unless otherwise indicated. In addition to the 189 species listed 87 species were received from other collectors, most of which were presented to the writer by Prof. Reinhard. The writer's entire collection of several thousand specimens of this family was recently presented to Cornell University at Ithaca, N. Y.

As a student at Cornell University the writer had an opportunity to study the very fine collection there and although taxonomic notes were never published some of the general notes are worth presenting at this time.

Aldrich (1915) published notes on the family which present a striking correlation on abundance of species. It is felt worth while to present his table and include a column for the Cornell collection made prior to the presentation of my collection to that institution. This information is presented as follows:

"The following figures show something about the relative abundance of species:"

	Aldrich	Cornell
Represented by one specimen	66	112
By two specimens	24	55
By three specimens	23	39
By four specimens	21	39
By five specimens	11	20
By six specimens	13	8
By seven specimens	11	18
By eight or more specimens	63	125
Total species	232	416

Aldrich stated "that about 25% of the species are represented by a single specimen, an equal proportion by eight or more, and that the other 50% fell between these extremes." It is very interesting to note that the percentages of species in the Cornell collection are not too far apart from the figures presented by Aldrich in 1915.

Some very careful notes were made on the Cornell collection by Dr. Robert Matheson in 1935. In looking over those it was interesting to note that a total of ninety-nine different collectors had contributed to the collection. It is only natural to expect collectors to limit their efforts to the groups in which they are interested at the particular time but a single specimen saved may later prove to be a new record or even a new species. It therefore behooves the collector to save everything. It was observed that fifty-nine collectors collected only one species each; eight collectors collected two species; seven collectors collected three species; six collectors collected four species; two collectors collected five species, etc. The bulk of the collection was made by the following:

Collector	Collections	Species
Blanton	481	178
Reinhard	144	133
Huckett	147	103
West	135	76
Bradley	91	61
Shannon	61	50
Leonard	56	46
Young	41	34
Davis	53	31
Krombein	25	18
Pechuman	16	14

Since Prof. Henry Dietrich became curator of the collections at Cornell University he has added considerably to the collection and he should no doubt be included in the tabulation.

LIST OF SPECIES*

Achatoneura aletia Riley. Willard, N. C., October

Achætoneura? cuculliæ Web. Burlington, Vt., July

Achætoneura frenchii Will. Babylon, June

Achatoneura? melalopha Allen. Babylon, July

Achætoneura sp. Salisbury, N. H., July

Acroglossa hesperidarum Will. Fire Island Beach, N. Y., July; Babylon, June; Gorham, N. H., July; Woodstock, N. H., July; Bretton Woods, N. H., July; Carolina Beach, N. C., May

Actia americana Tns. Selden, Sept.; Islip, June; Dix Hills, May; Babylon, June; Halfway Hollow Hills, May; Near West Rupert, Vt. Mother Myrick Mt. Vt., July

Actia autumnalis Tns. Babylon, Sept.; Halfway Hollow Hills, May; Near West Rupert, Vt. Mother Myrick Mt. Vt., July; East Barre, Vt., July

Actia diffidens Curr. Babylon, June

Actia interrupta Curr. Babylon, June-July; Woodstock, N. H., July

Actia palloris Coq. Near West Rupert, Vt. Mother Myrick Mt. Vt., July; Manchester-Peru, Vt., July

Admontia degeerioides Coq. (of Coq.) Babylon, June-August
* Unless otherwise indicated all specimens are from Long Island, N. Y.

Admontia pergandei Coq. Babylon, August

Admontia sp. Babylon, August; Selden, September; Brentwood, September

Amedoria lutuosa Mg. Babylon, May; Huntington, Aug.; Farmingdale, July

Amedoria quinteri Tns. Babylon, May, July, August; Halfway Hollow Hills, May

Anachætopsis tortricis Coq. Riverhead, May

Anetia (Lydella sp.) Islip, July

Aphria ocypterata Tns. Babylon, June; Islip, June

Aplomya cæsar Ald. Babylon, June; Heckscher St. Park, May Aplomya confinis Fall. Babylon, May, July & Aug.; Dix Hills,

August; Centereach, Sept.; Farmingdale, June; Near West Rupert, Vt. Mother Myrick Mt., July; Middlebury, Vt., July; Great Barrington, Mass., July; Manchester to Peru, Vt., July; Mt. Washington, N. H., July

Aplomya crassiseta A. & W. Babylon, May & June

Aplomya epicydes Wlk. Middlebury, Vt., July

Aplomya affinis Fall. Bretton Woods, N. H., July; Near West Rupert, Vt. Mother Myrick Mt., July

Archytas apicifera Wlk. Fairfax, S. C., April; Atmore, Ala., Aug. (Alton Blanton)

Archytas aterrima Desv. Dix Hills, Oct.; Orient Point, Sept.; Brentwood, Sept.; Babylon, June; Vermont & New Hampshire, July; Willard, N. C., Oct.

Archytas california Wlk. Vermont, New Hampshire, July

Archytas piliventris v.d. W. Jacksonville, Fla., Oct.; Panama City, Fla., Oct.

Archytas vulgaris Curr. Willard, N. C., Oct.

Arctophyto sp. Babylon, May

Belvosia borealis Ald. Willard, N. C., October

Belvosia semiflava Ald. Willard, N. C., October

Belvosia unifasciata Desv. Babylon, June-Sept.; Vermont, July; Willard, N. C., October

Beskia wlops Wlk. Willard, N. C., May; Bratt, Fla., Sept.

†Bonellimyia hæmorrhoidalis Fall. Near West Rupert, Vt.

† According to Brooks (Cat. Ent. LXXVI. p. 195) this is a European species.

Mother Myrick Mt., July; Peak of Mt. Mansfield, Vt., July; Stow to Mt. Mansfield, Vt., July; Manchester-Peru Vt., July; Mt. Equinox, Vt., July; Gorham, N. H., July

Bonnetia comta Fall. Babylon, June, Sept.; Dix Hills, Sept., Oct.; Orient Point, June, September

Catalinovoria cauta Tns. Babylon, June

Celatoria diabroticæ Shim. Babylon, Aug.; Willard, N. C., May, Oct.

Ceracia dentata Coq. Babylon, May, June, Aug., Sept. & Nov.; Farmingdale, June; Bretton Woods, N. H., July; Atmore, Ala., Nov.

Ceratomyiella conica Tns. Centereach, September

Chatogadia analis v.d. W. Brandon, Middlebury & Near West Rupert, Vt., July

Chætogædia crebra v.d. W. Babylon, Oct.

Chætophlepsis tarsalis Tns. Babylon, May-July

Chrystotachina alcedo Lw. Near West Rupert, Vt., Mother Myrick Mt., July

Cistogaster ? diversa Lw. (of authors). Stow-Mt. Mansfield, Vt., July

Cistogaster immaculata of Coq. Mqt. Babylon, July-Aug.; Dix Hills, June; Road 20 to Haverhill, N. H., July; Stow-Mt. Mansfield, Vt., July; Willard, N. C., May-Oct.

Clistomorpha triangulifera = Hyalomyodes triangulifera Lw.
Babylon, May, June; Near West Rupert, Vt. Mother Myriek
Mt., July; Middlebury, Vt., July

Cnephalia hebes pansa Sn. Babylon, Sept.; Dix Hills, October; Carolina Beach, N. C., May

Compsilura concinnata Mg. Near West Rupert, Vt. Mother Myrick Mt., July; Middlebury, Vt., July

Copecrypta ruficanda v.d. W. Willard, N. C., October; Bratt, Fla., Sept. (Alton Blanton)

Cryptomeigenia? menaspis Wlk. Islip, June; Babylon, May-June; Washington, D. C., May

Crytomeigenia? simplex Curr. Babylon, April, May; Heckscher St. Park, May; Wyandanch, June; Halfway Hollow Hills, May

Cryptomeigenia sp. Babylon, May & June; Centereach, May

Cuphocera hirsuta Tns. Babylon, June, Aug.; Centereach, September; Halfway Hollow Hills, June; Vermont, Connecticut, Maine, July

Cylindromyia decora Ald. Babylon, June; Woodstock, N. H. July; Gorham, N. H., July

Cylindromyia desiades Wlk. Babylon, June, Aug.; Crawfords Notch, N. H., July; Stowe, Mt. Mansfield, Vt., July

Cylindromyia euchenor Wlk. Wildwood St. Park, June; Babylon, May

Cylindromyia fumipennis Bigot. Babylon, Sept.; Fire Island, Sept.

Cylindromyia pusilla Ald. Babylon, July; Islip, June

Cyrtophlæba coquilletti Ald. Babylon, May; Dix Hills, May; Halfway Hollow Hills, May

Dexodes xylota Curr. Babylon, May; Dix Hills, May

Dexodes sp. Babylon, May; Dix Hills, May

Dinera sp. Babylon & Islip, June-July; Numerous specimens Dix Hills, Farmingdale, July

Dinera grisescens Mg. Babylon, June-Oct.

Doryphorophaga aberrans Tns. Farmingdale, June

Doryphorophaga doryphoræ Riley. Centereach, May; Dix Hills, May; Babylon, June; Brandon, Vt., July

Doryphorophaga macella Reinhard. Babylon, May, Aug., Sept., Oct.

Doryphorophaga sedula Reinhard. Babylon, June; Farming-dale, June

Epalpus signiferus Wlk. Dix Hills, Deer Park, Brentwood, Apr.; Babylon, Apr., June

Epigrimyia polita Tns. Willard, N. C., May

Epigrimyia sp. Selden, Sept.; Cold Springs Harbor, Aug.

Ernestia amelus = Mericia ampela Wlk. Centereach, Sept.;
Babylon, May

Ernestia = Mericia arcuata Toth. Babylon, April-June; West Hills, June; Manchester to Peru, Vt., July

Ernestia = Mericia flavicornis Br. Near West Rupert, Vt., July; Manchester-Peru Vt., July

Ernestia = Mericia platycarnia Toth. Near West Rupert, Vt. Mother Myrick Mt., July; Manchester-Peru, Vt., July

Ervia ? triquetra Oliv. Farmingdale, July

Erycia arator Ald. Babylon, June

Erycia (pilateo) ? n. sp. Islip, July; Chinquapin, N. C., Oct.

Euclytia flava Tns. Babylon, July

Eulasiona comstockii Tns. Babylon, May & June; Near West Rupert, Vt. Mother Myrick Mt., July

Euryceromyia robertsoni Tns. Babylon, June, Sept.

Eutrixa exilis Coq. Babylon, May; Palisades, N. J., Nov.

Exorista larvarum L. Babylon, June, July & Sept.; Farming-dale, June; Salisbury, N. H., July; Manchester-Peru, Vt., July; Near West Rupert, Mother Myrick Mt., Vt., July; Brandon, Vt., July

Exorista simulans = Guerinia simulans Mg. Islip, July; Babylon, May-July; Farmingdale, June; Manchester, Peru, Vt., July; Brandon, Vt., July; Near West Rupert, Vt. Mother Myrick Mt., July; Salisbury, N. H., July

Exoristoides slossonæ Coq. Babylon, June-July

Fabriciella algens Wd. East Barre, Vt., July

Fabriciella florum Wlk. Babylon, May, June, July & Oct.; Selden, Sept.; Dix Hills, Oct.

Fabriciella hispida Toth. Maine, July

Gadiopsis ocellaris Coq. Manchester to Peru, Vt., July

Genea analis Say = Genea aurea James. Babylon, June, July

Genea aldrich Toth. Babylon, June; Islip, July

Gonia frontosa Say. Babylon, Dix Hills, Deer Park, Islip, April, May, June & July (Mostly on Willow blossoms)

. Gonia sagax Tns. Halfway Hollow Hills, Babylon, April, May & June; Dix Hills, May & June

Gonia senlis Will. Babylon, June

Gymnosoma fuliginosa of Coq. Desv. Babylon, Aug. & Sept.; East Barre, Vt., July

Hemyda aurata Desv. Babylon, July

Hineomyia setigera Coq. Babylon, June-July, May-Sept.; East Barre, Vt., July; Middlebury, Vt., July

Hyalomyiopsis aldrichi Tns. Babylon, May, June; Brentwood, Sept.

Hystrica abrupta Wd. Near West Rupert, Vt. On Poison Parsley, July; Mother Myrick Mt., July

Leschenaultia? exul. Tns. Babylon, April-June

Leschenaultia sp. (Blepharipeza) Dix Hills, Babylon, May; West Hills, N. Y., June; Near West Rupert, Vt., July

Leskiomima tenera Wd. Babylon, June; Islip, July

Leucostoma atra ? Tns. Babylon, July

Leucostoma senilis of Coq. Tns. Dix Hills, Aug.

Lispidea palpigera Coq. Babylon, June

Lispidea sp. Mt. Washington, N. H. Alpine Garden, July

Lixophaga plumbea Ald. Babylon, Apr., May & June; Brentwood, May; Farmingdale, June; Medford Sta., Sept.; Huntington, July; Dix Hills, May; Bratt, Fla., Sept.

Lixophaga variabilis Coq. Babylon, June-July; Islip, July; Farmingdale, June; Manchester-Peru, Vt., July; Chinquapin, N. C., Oct.

Lydina areos Wlk. Babylon, May to Sept.

Lypha setifacies (West) Babylon, May

Metavoria orientalis Tns. Islip, July

Microphthalma disjuncta Wd. Islip, July; Dix Hills, August; Babylon, June & July

Myiophasia metallica Tns. Babylon, June-Sept.; Farmingdale, June; Oak Beach, Aug.; Islip, July-Aug.; Peekskill, N. Y., Aug.; Brentwood, Sept.; Halfway House to Gorham, N. H., July; Middlebury, Vt., July; Manchester to Peru, Vt., July; Atlantic City, N. J., Sept.; Wilmington, N. C., Oct.

Myobiopsis similis Tns. Babylon, August

Nemorilla floralis Mg. Dix Hills, August; Babylon, July-Aug.

Oedematocera gilvipes Coq. Babylon, July

Oestrophasia signifera v.d. W. Babylon, July

Ormia montana Tns. Milton, Fla., Oct.

Oxynops anthracina Sig. Babylon, July, Sept.

Parachytas decisa Wlk. East Barre, Vt., July

Paradidyma singularis Tns. Babylon, May, June & Aug.; Farmingdale, June; Heckscher St. Park, May; Atlantic City, N. J., Sept.

Parlispe sp. Islip, June

Peleteria anaxias Wlk. Babylon, May-June

Peleteria apicalis Wlk. Babylon, June, July; Vermont, July

Peleteria iterans Wlk. Peak of Mt. Mansfield, July; Oliver B.

C., May

Phasmophaga antennalis Tns. Babylon, June

Phorocera claripennis Mcqt. Babylon, May, June & Aug.; Heckscher St. Park, May; Near West Rupert, Vt., Mother Myrick Mt., July; East Barre, Vt., July; Middlebury, Vt., July; Salisbury, N. H., July

Phorocera einaris Smith. Cold Springs Harbor, Aug.; Babylon, July

Phorocera? reinhardi A. & W. Babylon, April

Phorocera silvatica Ald. Babylon, May-June; Islip, May; Dix Hills, May

Phrynodella polita Tns. Babylon, June-Oct.; Heckscher State Park, May

Phrynofrontina discalis Coq. Babylon, Aug., Sept.

Phryxe vulgaris Fall. Brandon, Vt., July; Near West Rupert, Vt., Mother Myrick Mt., July; Mt. Equinox, Vt., July; Middlebury, Vt., July; Half Way House—Gorman, N. H., July

Plagiomima cognata ? Ald. (discolored). Babylon, Aug.

Plagiomima similis Tns. Babylon, June, Aug. & Sept.; Willard, N. C., Oct.

Polistomyia plumipes Fabr. Babylon, July

Pseudochata argentifrons Coq. Selden, Sept.; Babylon, Aug.

Pseudotachinomyia aqualis Rein. Heckscher State Park, May; Babylon, May

Pseudotachinomyia webberi Smith = P. slossonæ Tns. Dix Hills, May & June; Halfway Hollow Hills, May; West Hills, June; Babylon, May & June; Farmingdale, June

Pseudeuantha coquilletti Ald. Babylon, July-Aug.; Farming-dale, June; Mt. Equinox, Vt., July

Ptilodexa sp. (several species). Babylon, May-Sept.; Oak Beach, Selden, May-Sept.

Pyraustomyia penitalis Coq. Babylon, June

Schizotachina? convecta of Coq. Wlk. Babylon, May; Selden, Sept.; Islip, July; Dix Hills, Aug.

Schizotachina longicornis Coq. Babylon, July

Siphona geniculata of Coq. de G. Babylon, April-Sept.; Dix Hills, June & Oct.; Flume—North Woodstock, N. H., Aug.

Siphophyto floridensis Tns. Babylon, May, July; Islip, June; Selden, Sept.

Siphosturmiopsis phyciodis Coq. Babylon, June, August; Farmingdale, June

Siphosturmiopsis melanpyga Rein. Babylon, May; East Barre, Vt., July

Spathmeigenia? aurifrons Curr. Farmingdale, June; Islip, June

Sturmia crescentis Reinhard. Babylon, June (Paratype)

Sturmia pilatei Coq. Willard, N. C., Oct.

Tachinomyia apicata Curr. Babylon, May & June; Dix Hills, June; Centereach, May; BelleDaire, June; West Hills, June; Heckschers St. Park, May

Tachinomyia panætins Wlk. Babylon, April-June; Dix Hills, April; Halfway Hollow Hills, May

Tachinomyia? variata Curr. Babylon, May & June; Dix Hills, May; Halfway Hollow Hills, May. Numerous specimens

Pseudomyothyria ancilla Wlk. Babylon, July-Aug.; Atlantic City, N. J., Sept.

Tachinophyto floridensis Tns. Babylon, Sept.

Tachinophyto vanderwulpi Tns. Tin City, N. C., Oct.; Wilmington, N. C., Oct.

Thelaira americana Brks. Babylon, June–July; Dix Hills, June–July

Theresia tandrec Desv. Babylon, July-Aug. On tree trunks, especially oak trees at end of Paumanake Ave., just before dark.

Trichopoda pennipes Fabr. Anawalk, N. Y., Aug.; Trenton, N. J., June; Fairfax, S. C., April

Viviania georgiæ BB. Babylon, July-Aug.; Islip, May

Viviana sp. Babylon, May-June

Voria ruralis Mg. Babylon, July

Metachæta atra Coq. Babylon, May-June & August; Middlebury, Vt., July

Micromintho melania Tns. Islip, July; Selden, Sept.; Farmingdale, June

Wagneria vernata West. Babylon, May

Winthemia datanæ Tns. Babylon, July, Aug. & Sept.; Centereach, Sept.; Laural Beach, July; Willard, N. C., May

Winthemia fumiferanæ Toth. Halfway Hollow Hills, May

- Winthemia quadripustulata Fabr. Heckscher St. Park, May; Babylon, June; West Hills, June; Near West Rupert, Vt. Mother Myrick Mt., July
- Winthemia rufopicta Bigot. Heckscher State Park, May; Babylon, June & Sept.; Middlebury, Vt., July; Near West Rupert, Vt., Mother Myrick Mt., July
- Xanthomelana atripennis Say. Ocala, Fla., November; Middlebury, Vt., July
- Xanthophyto labis Tns. Near West Rupert, Vt., July Zenillia blanda O. S. Babylon, June; Islip, June

LITERATURE CITED

Aldrich, J. M. 1915. Results of twenty-five years collecting in the Tachinidæ, with notes on some common species. Ann. Ent. Soc. Amer. 8: 79-84.